

**IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI  
SOUTHERN DIVISION**

**CHARLOTTE WILLIAMS**

**PLAINTIFF**

**v.**

**CIVIL ACTION NO. 1:06cv658BAF-JMR**

**MISSISSIPPI STATE PORT AUTHORITY  
AT GULFPORT; MISSISSIPPI STATE PORT  
AUTHORITY; MISSISSIPPI DEVELOPMENT  
AUTHORITY; TURBANA CORPORATION;  
CHIQUITA FRESH NORTH AMERICA L.L.C.;  
DOLE FOOD COMPANY, INC.; CROWLEY  
AMERICAN TRANSPORT, INC.; CROWLEY  
LINER SERVICES, INC.; ABC CORPORATION;  
XYZ COMPANY**

**DEFENDANTS**

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**CROWLEY’S MEMORANDUM IN OPPOSITION TO PLAINTIFF’S  
MOTION TO EXCLUDE EXPERT TESTIMONY OF  
LIEUTENANT COLONEL RICHARD HENNING**

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This memorandum is respectfully submitted on behalf of Defendant Crowley Liner Services, Inc. (“Crowley”) in Opposition to Plaintiff’s Motion to Exclude Expert Testimony of Lieutenant Colonel Richard Henning.<sup>1</sup>

**INTRODUCTION**

Crowley designated Lt. Col. Henning, a thirteen-year member and officer in the U.S. 53rd Weather Reconnaissance Squadron known as the “Hurricane Hunters,” to render his expert opinion on: (1) the unprecedented nature of Hurricane Katrina; and (2) the progression of wind speeds and water levels at Plaintiff’s home during the landfall of Hurricane Katrina. Plaintiff’s Motion and Memorandum in Support to Exclude Expert

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<sup>1</sup> Plaintiffs only attempt to exclude Lt. Col. Henning’s testimony in the *Charlotte Williams* and *David and Susan Lindsey* expedited cases. Plaintiffs have not attempted to exclude Lt. Col. Henning’s testimony as an expert in the *Wheeler*, *DeFazio* or *Cooper* cases.

Testimony of Richard G. Henning (Dkts. 332, 346 and 347) (“Motion”) is simply an attempt to blur the distinctions between Lt. Col. Henning’s opinions and confuse the proper standard for the exclusion of expert testimony. Essentially, Plaintiff tries to use her disagreement with the precise winds speeds included in Lt. Col. Henning’s opinion as a basis for portraying this as a typical wind versus water case as so many other cases before this Honorable Court and for arguing Lt. Col. Henning’s testimony on the unprecedented nature of Hurricane Katrina is unreliable. She is simply wrong on both points. As will be shown below, Plaintiff’s Motion is nothing more than a series of conclusory or misleading statements interspersed with citations to *Daubert* and its progeny.

### **STATEMENT OF THE CASE**

Defendants are in the business of moving containerized cargo by ship into and out of the Port of Gulfport. This matter arises from the loss of Plaintiff’s home as a result of Hurricane Katrina. Despite the exposure of Plaintiff’s home to the most destructive hurricane in U.S. history, Plaintiff claims that it was not the wind and water of Hurricane Katrina but the alleged inadequately secured containers from the Port that caused the destruction of her home.

Lt. Col. Henning was designated by Crowley as an expert meteorologist to opine on the unprecedented nature of Hurricane Katrina and the progression of wind speeds and water levels at Plaintiff’s home. Crowley has filed a Motion for Summary Judgment on the grounds as follows: (1) lack of foreseeability; (2) “Act of God”; or (3) lack of causation due to the widespread destruction caused by Hurricane Katrina. In addition,

Crowley is entitled to summary judgment as a matter of law due to the lack of specific causation and damages to each plaintiff's property.

### **STANDARD OF REVIEW**

Federal Rule of Evidence 702 establishes the basis for this Honorable Court's admissibility of expert testimony:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 590-91 (1993), the United States Supreme Court determined that under Rule 702 only two factors must be satisfied for the admission of expert testimony: (1) relevance; and (2) reliability. In making this determination, the Supreme Court departed from the *Frye* "general acceptance" test, stating that the "'general acceptance' requirement would be at odds with the 'liberal thrust' of the Federal Rules and their 'general approach of relaxing the traditional barriers to 'opinion' testimony.'"<sup>2</sup> In departing from the "general acceptance" test, the Supreme Court granted greater discretion and flexibility to the trial judge in his or her "gatekeeping" role.<sup>3</sup>

For expert testimony to be considered reliable, it "must be supported by appropriate validation – *i.e.*, 'good grounds,' based on what is known."<sup>4</sup> "This entails a preliminary assessment of whether the reasoning or methodology underlying the

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<sup>2</sup> *Daubert*, 509 U.S. at 588.

<sup>3</sup> *Kumho Tire Company, Ltd. v. Carmichael*, 526 U.S. 137, 150 (1999) ("Our emphasis on the word 'may' thus reflects *Daubert's* description of the Rule 702 inquiry as 'a flexible one.'").

<sup>4</sup> *Daubert*, 509 U.S. at 590.

testimony is scientifically [technically or otherwise] valid and of whether that reasoning or methodology properly can be applied to the facts in issue.”<sup>5</sup>

### **RESPONSE IN OPPOSITION**

#### **I. PLAINTIFF MAKES ONLY A PERFUNCTORY CHALLENGE TO LT. COL. HENNING’S QUALIFICATIONS AS AN EXPERT METEOROLOGIST**

Although Plaintiff claims “Mr. Henning is no more qualified to render opinions in the field of meteorology than any other individual on planet Earth,”<sup>6</sup> Plaintiff’s Motion never substantiates this claim for an obvious reason – Lt. Col. Henning is eminently qualified. As expressed in his *curriculum vitae*<sup>7</sup> and as was stated in his deposition, Lt. Col. Henning:

- holds both a bachelors and a masters degree in meteorology from Florida State University<sup>8</sup>;
- is “a Lieutenant Colonel in the United States Air Force Reserve with the 53<sup>rd</sup> Weather Reconnaissance Squadron also known as the Hurricane Hunters”<sup>9</sup>;
- is part of a team that is one of the “primary means by which the National Hurricane Center gets all of its data on wind speed pressure, intensity of the storm and lots of other different parameters” during a hurricane<sup>10</sup>;
- has participated in 147 hurricane eyewall penetrations since joining the Hurricane Hunters<sup>11</sup>;
- personally directed the flight of the Hurricane Hunters into the eyewall of Hurricane Katrina on the morning of August 28, 2005<sup>12</sup>;

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<sup>5</sup> *Id.* at 592-93.

<sup>6</sup> Memorandum Brief in Support of Plaintiff’s Motion to Exclude Expert Testimony of Richard G. Henning, Dkts. 332 and 347 at 6.

<sup>7</sup> A copy of Lt. Col. Henning’s CV is attached hereto as Exhibit “A-1”.

<sup>8</sup> Henning Depo. at 129, line 21 through 130 line 20. All relevant portions of Lt. Col. Richard Henning’s deposition transcript are attached hereto globally as Exhibit “B”.

<sup>9</sup> Ex. “B” at 131, lines 4 – 9.

<sup>10</sup> *Id.* at 131, line 10 through 132 line 11.

<sup>11</sup> *Id.* at 136, lines 16 – 18.

<sup>12</sup> *Id.* at 136, lines 19 – 24.

- “was arguably the first person anywhere on earth that knew [Hurricane Katrina] had gone from a Category 3 to a Category 5 storm based on the data [he] was seeing in the aircraft”<sup>13</sup>; and
- has authored and presented numerous articles and publications on the meteorological effects and conditions of hurricanes at “every American Meteorological Society, Tropical Meteorology meeting since 1997,”<sup>14</sup> including the following:

*Mesoscale Convective Processes and Their Link to Enhanced Tropical Cyclogenesis.* 1997. Published by Florida State University

*Electrically active mesoscale convective complexes and their link to explosive tropical cyclogenesis* 22<sup>nd</sup> American Meteorological Society (AMS) Conference on Hurricanes and Tropical Meteorology, May 1997, Fort Collins, CO

*Using AVAPS to observe advection patterns linked to convective bursts and rapid intensification of tropical cyclones* 23<sup>rd</sup> AMS Conference on Hurricanes and Tropical Meteorology, January 1999, Dallas, TX

*Using 200 millibar reconnaissance observations to predict the onset of rapid intensification* 53<sup>rd</sup> Interdepartmental Hurricane Conference, March 1999, Biloxi, MS

*Using GPS dropwindsondes to analyze the thermodynamic structure of hurricanes* 54<sup>th</sup> Interdepartmental Hurricane Conference, March 2000, Houston, TX

*Low level wind maxima observed by GPS dropsondes and their links to changes in the intensity of Hurricanes Bret and Floyd,* 24<sup>th</sup> AMS Conference on Hurricanes and Tropical Meteorology, May 2000, Fort Lauderdale, FL

*Observations of low level wind maxima using GPS dropsondes and their link to 200 Millibar Clues Identifying the Onset of Rapid Intensification* 24<sup>th</sup> AMS Conference on Hurricanes and Tropical Meteorology, May 2000, Fort Lauderdale, FL

*Intense very-late-season Caribbean Hurricanes* 25<sup>th</sup> AMS Conference on Hurricanes and Tropical Meteorology, April 2002, San Diego, CA

*Gathering in-situ data using aircraft reconnaissance to investigate incipient tropical cyclogenesis,* 26<sup>th</sup> AMS Conference on Hurricanes and Tropical Meteorology, April, 2004, Miami, FL

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<sup>13</sup> *Id.* at 137, lines 7 – 16.

<sup>14</sup> *Id.* at 135, lines 4 – 14.

*The Intensity of wind gusts underneath areas of eyewall convection in Hurricanes Katrina and Dennis at landfall*, 27<sup>th</sup> AMS Conference on Hurricanes and Tropical Meteorology, April, 2006, Monterey, CA<sup>15</sup>

Plaintiff attempts to bring the qualifications of Lt. Col. Henning into question are nothing more than conclusory allegations. For instance, Plaintiff places great importance on Lt. Col. Henning's pending application for designation as a certified consulting meteorologist through the American Meteorological Society.<sup>16</sup> This fact, however, in no way diminishes the scientific, technical and specialized expertise consistent with Rule 702 that Lt. Col. Henning possesses. An actual review of Lt. Col. Henning's qualifications listed above reveals that he is more than qualified to offer his expert opinion.

If a Mission Director of the Hurricane Hunters, who possesses both a bachelors degree and a masters degree in meteorology, has published and presented numerous articles and publications on the meteorological effects and conditions of hurricanes to academia, and has first-hand personal knowledge of conditions inside Hurricane Katrina's eyewall is not qualified to render his expert opinion, then there can be no expert who would be qualified. Lt. Col. Henning is the embodiment of what an expert should be.

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<sup>15</sup> See Exhibit "A-1" at 3 for a listing of Lt. Col. Henning's publications.

<sup>16</sup> Ex. "B" at 9-10.

**II. LT. COL. HENNING'S OPINIONS ARE BASED ON DATA AND METHODOLOGY THAT IS COMPLETELY RELEVANT AND RELIABLE**

*A. Lt. Col. Henning's Non-Reliance on the National Hurricane Center's Downgraded Wind Advisories Is Objectively Reasonable and Scientifically and Technically Valid*

Plaintiff contends that Lt. Col. Henning's wind calculations are based on less reliable data than is presently available due to his non-reliance on the National Hurricane Center's ("NHC") Tropical Cyclone Report.<sup>17</sup> Plaintiff's position is seemingly that the NHC's Tropical Cyclone Report is infallible and that any criticism of the Report by an educated and extremely credentialed meteorologist warrants exclusion of that person's testimony. Essentially, Plaintiff contends that the NHC's Tropical Cyclone Report, which redefined the intensity of Hurricane Katrina at both the Louisiana and the Mississippi landfalls, renders obsolete the real-time data published in the NHC advisories for Hurricane Katrina.<sup>18</sup> This is absolutely not the case. As explained in Lt. Col. Henning's Declaration attached hereto as Exhibit "A," he did not rely on the amended values in the NHC Katrina Report for the following reasons:

(a) The wind value calculations stated in my report were derived, only in part, by use of a software program called HurrTrak. HurrTrak is a tool used by emergency management officials and facilities, including FEMA, state and local emergency management agencies, National Weather Service offices and Eglin Air Force Base. HurrTrak takes the data issued from the National Hurricane Center ("NHC") advisories and plots that data. The NHC Katrina Report did not alter the real-time information that is contained in the advisories for Hurricane Katrina. Further, the NHC Katrina Report does not include the same type of data included in the advisories on the strength of the winds in each quadrant and their radius from the eye of the hurricane, which is necessary for the analysis performed by HurrTrak.

(b) The NHC Katrina Report relies too heavily on anemometer data that was rendered inoperable and stopped transmitting during Hurricane Katrina.

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<sup>17</sup> See Dkts. 332 and 347 at 2 – 3.

<sup>18</sup> *Id.*

(c) Employees of Stennis Space Center observed anemometer readings in excess of 140 mph during Hurricane Katrina.

(d) In over 100 years of NHC data, no hurricane with a barometric pressure as low as that recorded in Hurricane Katrina has been recorded as having sustained winds as low as those reported for Hurricane Katrina in the NHC Katrina Report.

(e) The NHC Katrina Report classifies Hurricane Katrina as a Category 3 system although the Report acknowledges that Category 4 winds affected the Louisiana Coast.

(f) Several other meteorologists have criticism of the NHC Katrina Report.<sup>19</sup>

Although Plaintiff's counsel never specifically asked Lt. Col. Henning why he disagreed with the NHC's Tropical Cyclone Report, an explanation he has now provided, Lt. Col. Henning did make it emphatically clear during his deposition that "[t]here are dozens of meteorologists that disagree to some degree"<sup>20</sup> with the NHC's Tropical Cyclone Report.

Q. As we sit here today, can you name any other meteorologist who joins in your dissent with respect to any findings that were made in the updated August 10<sup>th</sup>, 2006 report by the National Hurricane Center?

A. Yes.

Q. Go ahead and name them if you would.

A. Some of the people that disagree include [Karl Hoarau], who was an instructor at a university in France who is a well renown tropical cyclone expert. Dr. Chris Velden, who is the chairman of the AMS meeting that's convening here on January 21<sup>st</sup>, in New Orleans. He disagrees with the assessment. There are dozens of meteorologists that disagree to some degree for different points that were made in the Hurricane Center report.<sup>21</sup>

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<sup>19</sup> See Exhibit "A", ¶ 6(a)-(f).

<sup>20</sup> Ex. "B" at 61, line 21 through 62 line 4.

<sup>21</sup> *Id.* at 61, line 16 through 62 line 4.



Q. . . . Are you aware of any article or treatise which has addressed the tropical cyclone report initially issued on December 20<sup>th</sup>, updated August 10<sup>th</sup>, 2006 where they disagree with any of the findings in the updated report?

A. Yes.

Q. Okay. Can you name the articles or treatises?

A. There are several articles written by Dr. Keith Blackwell, University of South Alabama, Dr. Pat Fitzpatrick at Mississippi State University, by Dr. Velden up at the University of Wisconsin. There are, again, there are – I stick to my statement here that there's disagreement over what was conveyed in the Hurricane Center report.<sup>22</sup>

Based on the foregoing, Plaintiff cannot reasonably argue that Lt. Col. Henning's decision not to rely completely on all data presented in the NHC's Tropical Cyclone Report for Hurricane Katrina is scientifically or technically invalid, or that his reasoning or methodology cannot be properly applied to the facts at issue in this matter. Lt. Col. Henning's disapproval of the updated NHC Tropical Cyclone report is well-reasoned and supported by other experts in the field. The proper means for Plaintiff to challenge Henning's conclusions is through cross-examination, not a *Daubert* motion. Plaintiff's Motion should therefore be denied.

*B. Lt. Col. Henning's Wind Calculations Are Supported by Quantifiable Convective Features, U.S. Air Force Inclement Weather Guidelines and an Eyewitness Account*

Plaintiff alleges there is confusion "as to Henning['s] conclusions about the degree to which convective scale structures can cause increases in wind speeds during a Hurricane."<sup>23</sup> Plaintiff's confusion is not a basis for excluding Lt. Col. Henning's testimony. For the Court's benefit, however, Lt. Col. Henning testified in his deposition

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<sup>22</sup> *Id.* at 62, lines 12 – 24.

<sup>23</sup> Dkts. 332 and 347 at 11.

that an increase of 30 to 35 knots is a “representative rule of thumb . . . if you have an area of intense convect[ion].”<sup>24</sup> In fact, as further detailed in Lt. Col. Henning’s Declaration, the “generally accepted standard for the value that the mesoscale convective vortexes (“MCVs”) increase wind speeds is between 30 to 35 knots.”<sup>25</sup> This standard is supported by official Air Force warning guidelines for inclement weather,<sup>26</sup> a standard based on both prior studies and empirical evidence. Though Plaintiff may be confused by Lt. Col. Henning’s use of the same rule of thumb promulgated by the U.S. Air Force, that is not a basis to exclude or limit Henning’s testimony.

On a related but different issue, Plaintiff complains that “Henning’s proposed conclusion about inflated wind speed estimates never have been, nor can be, tested.”<sup>27</sup> Once again, however, those same wind speed estimates are fully supported by the Air Force’s Moderate Thunderstorm Wind Advisory Guidelines<sup>28</sup> derived from years of empirical research. Plaintiff’s true complaint lies with the Air Force.

Additional support for the position that Plaintiff’s property was impacted by convective scale structures is the eyewitness account of Mr. Blewett W. Thomas, a neighbor of Plaintiff that remained on Richards Avenue until approximately 8:45 a.m. on the morning of Hurricane Katrina. Mr. Thomas’ account is that on the morning of Hurricane Katrina:

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<sup>24</sup> Ex. “B” at 16, lines 7 – 18.

<sup>25</sup> Ex. “A,” ¶ 7.

<sup>26</sup> *Id.*; see excerpts of the Air Force Manual 15-125, at 16 and 20, a copy of which is attached as Exhibit “A-2”.

<sup>27</sup> Dkts. 332 and 347 at 11.

<sup>28</sup> See Exhibit “A-3”.

[a]t about 8:30AM [he] realized that [he] must leave before the wind speed increased any more. The winds had become extremely strong and violent by th[at] time, and there is a possibility that one or more tornados struck nearby, as [he] heard several loud cracks that were similar to the sound of a shotgun.<sup>29</sup>

Mr. Thomas' statement coincides very well with Lt. Col. Henning's Timeline of the meteorological conditions that affected Plaintiff's property during Hurricane Katrina, specifically that at 8:44 a.m. the inner eyewall of Hurricane Katrina containing embedded tornadic MCVs moved onshore and reached Richards Avenue.<sup>30</sup>

Plaintiff reports further confusion regarding Henning's effort to simplify his calculations for a layman by using miles per hour ("mph") instead of knots.<sup>31</sup> Stripped to the core, if Lt. Col. Henning had precisely converted the Air Force's rule of thumb from knots to miles per hour, the resulting figures would have been higher (30 knots = 34.5 mph; 35 knots = 40.25 mph). If anything, Lt. Col. Henning's use of mph actually underestimated the wind speed increases caused by MCVs.

Plaintiff also states that Lt. Col. Henning had complete discretion in choosing what type of data to enter into HurrTrak.<sup>32</sup> As explained above, Lt. Col. Henning used, among other things, HurrTrak as a plotting tool to determine the wind values that affected Plaintiff's property during Hurricane Katrina. To the contrary of Plaintiff's assertion, however, Lt. Col. Henning never indicated that he arbitrarily inserted data into the HurrTrak program:

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<sup>29</sup> February 8, 2006 Statement of Blewett Thomas, a copy of which is attached as Exhibit "D-1".

<sup>30</sup> See Timeline for 150 Richards Avenue, Long Beach, Mississippi, a copy of which is attached as Exhibit "C".

<sup>31</sup> Dkts. 332 and 347 at 11.

<sup>32</sup> Dkts. 332 and 347 at 3.

Q. For purposes of the reports that you have prepared in this litigation, is my understanding correct that you had complete discretion with respect to the type of data you chose to input into the Hurtrak program?

A. That's not entirely true. The software is not very -- it's relatively simple and it doesn't have the ability to -- it doesn't have the ability to take inputs in formats other than what it expects to receive. It's primarily set up to accept National Hurricane Center advisories. That's what it's designed to do.

Theoretically you could take those, the inputs that Hurtrak is asking for and put any data that you want into it. But you would have to do that by hand manually for all the different points involved and that would defeat the purpose of, of using the software so I've never used it for anything other than plotting National Hurricane Center advisories.

Q. But when you inputted the data into Hurtrak for purposes of this litigation and your reports, you chose what facts and figures to enter into the program, didn't you?

A. I entered what is typically entered into Hurtrak, which is the National Hurricane Center advisory data. And that's, that's discussed in my report.<sup>33</sup>

Ultimately, the relevance of the maximum sustained winds at Plaintiff's property during Hurricane Katrina is different in this case in comparison to the typical wind versus water dispute. As noted above, Lt. Col. Henning's opinions are offered for two primary reasons: (1) to confirm with empirical evidence that Hurricane Katrina was unprecedented in its magnitude; and (2) the progression of wind speeds and water levels at Plaintiff's home during Hurricane Katrina.

In fact, Plaintiff's Motion does not and cannot attack the following relevant, verified and reliable meteorological facts about which Mr. Henning is qualified to give testimony that demonstrate the unprecedented and unforeseeable nature of Hurricane Katrina:

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<sup>33</sup> Ex. "B" at 41-42.

- Hurricane Katrina, a Category Three (3) Hurricane, “created the largest storm surge ever measured on the Mississippi Gulf Coast or anywhere else in the U.S.,” a storm surge approximately six (6) feet higher in Gulfport, Mississippi, than the storm surge created by Hurricane Camille, a Category Five (5) Hurricane<sup>34</sup>;
- Hurricane Katrina created “the largest waves ever measured in the Gulf of Mexico”<sup>35</sup>;
- Hurricane Katrina was a much larger tropical cyclone than Hurricane Camille in terms of the number of square miles it covered<sup>36</sup>;
- The central pressure of Hurricane Katrina dropped to a value of 902 millibars, which is lower than the lowest pressure measured in Hurricane Camille<sup>37</sup>;
- “Due to its strength and size . . . the *momentum flux* was calculated to be higher for Katrina than any other storm that has ever threatened the U.S. coastline”<sup>38</sup>;
- Hurricane Katrina contained three (3) to four (4) times as much kinetic energy as Hurricane Camille<sup>39</sup>;
- At landfall, Hurricane Katrina had an overall destructive potential that ranked higher than any other storm that has made landfall in this country<sup>40</sup>;
- Hurricane Katrina far exceeded all other hurricanes, including Hurricane Camille, in terms of the property and economic damage it inflicted<sup>41</sup>;
- Hurricane Katrina was the deadliest hurricane in 77 years<sup>42</sup>; and
- Widespread destruction occurred in all cities along the Mississippi Gulf Coast, including Bay St. Louis, Pass Christian, Long Beach, Gulfport, Biloxi and Pascagoula.<sup>43</sup>

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<sup>34</sup> Henning Report at 11. Lt. Col. A copy of Lt. Col. Henning’s expert report is attached hereto as Exhibit “B-1” hereto.

<sup>35</sup> *Id.* at 3. Only a few hours prior to the eye of Katrina reaching the Mississippi Gulf Coast, a maximum significant wave height of 55.5 feet was recorded, surpassing the National Data Buoy Center significant wave height record of 52 feet recorded during Hurricane Ivan. *Id.*

<sup>36</sup> *Id.* at 1.

<sup>37</sup> *Id.* at 3.

<sup>38</sup> *Id.* at 3 (emphasis added).

<sup>39</sup> *Id.* at 2.

<sup>40</sup> *Id.* at 5.

<sup>41</sup> *Id.* at 1.

<sup>42</sup> Ex. “B” at 44, lines 13 – 24.

Plaintiff's arguments attempt to blur the distinction between the separate purposes of Lt. Col. Henning's testimony. In other words, Plaintiff tries to use her disagreement with the precise winds speeds included in Lt. Col. Henning's opinion as a basis for arguing his testimony on the unprecedented nature of Hurricane Katrina is unreliable. She is wrong. As detailed above, Lt. Col. Henning's testimony is admissible for both purposes.

*C. Lt. Col. Henning's Methodology Has Been Subjected To Peer Review*

Plaintiff claims the lack of general acceptance of the methodology employed by Lt. Col. Henning in rendering his expert opinion should automatically bar its admissibility.<sup>44</sup> She further claims Lt. Col. Henning's opinions must be barred because they have never been subjected to peer review.<sup>45</sup> Plaintiff is wrong on both accounts.

As recognized in *Daubert*, a reliability assessment does not necessarily require a general acceptance of a particular methodology, especially when a new, innovative and well-grounded approach is being employed.<sup>46</sup> Thus, even if Lt. Col. Henning's methodology had not been peer-reviewed, that alone would not warrant exclusion. But such academic considerations are unnecessary because Lt. Col. Henning has given presentations at every American Meteorological Society, Tropical Meteorology meeting since 1997.<sup>47</sup> His methodology has certainly been subject to peer review via his presentations and publications in the meteorological field.<sup>48</sup>

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<sup>43</sup> Ex. "B-1" at 12-13.

<sup>44</sup> Dkts. 332 and 347 at 12 – 13.

<sup>45</sup> Dkts. 332 and 347 at 13.

<sup>46</sup> See *Daubert*, 509 U.S. at 593-94.

<sup>47</sup> Ex. "B" at 135, lines 4 – 14.

<sup>48</sup> See Exhibit "A-1" at 3 (two of Henning's most recent publications focus specifically on this methodology).

Moreover, to the extent Plaintiff claims Lt. Col. Henning's methodology for increasing wind speeds for convective scale structures is not generally accepted,<sup>49</sup> she is wrong. Lt. Col. Henning's upward adjustment of 30 – 35 knots for convective scale structures is based on official U.S. Air Force Inclement Weather Guidelines, and Mr. Henning references several sources supporting MCV activity occurring over Plaintiff's property during Hurricane Katrina.<sup>50</sup>

Plaintiff also alleges that Lt. Col. Henning is a "lone wolf" with respect to his methodology in the interpretation of dropsonde readings.<sup>51</sup> Plaintiff, again, mischaracterizes Lt. Col. Henning's testimony:

Q. Isn't it true that, well, let me -- you can't pinpoint with perfect accuracy the data obtained from dropsondes into ground level speeds, can you?

A. That is, again, I believe that's an oversimplification. What we try to do in science is make informed estimates, not just guesses. Unless you dropsonde hundreds of them every second across thousands of different points along the Mississippi coast, there's no way to definitively determine wind speed. The only way to definitively determine the wind speed at each residence is to have an anemometer that survives the entire landfall event at each location, records perfectly and records a complete dataset. Short of that, everything else involves estimation and it involves interpretation of the data.

Q. Can there be uncertainty or can there be scientific uncertainty in regard to the estimations that were made in respect to how you interpret the data from a dropsonde into ground or surface winds?

A. Everything in meteorology involves a certain degree of uncertainty. What we try to do is reduce that uncertainty. On Page 5, the third paragraph after the beginning of the Wind Summary, I talk about the margin of error. That's based on everything I know and all the work that I've done. The values in my report are plus or minus approximately five knots.

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<sup>49</sup> Dkts. 332 and 347 at 12 – 13.

<sup>50</sup> See Ex. "B-1" at 9-10.

<sup>51</sup> Dkts. 332 and 347 at 4.

So I'm very confident that the values that I've put forth in this report are accurate within approximately five knots.<sup>52</sup>

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Q. But you would agree that there's ongoing debate with respect to how to interpret the data; and I guess my question is, about how to read the dropsonde instruments with respect to the surface winds in the meteorological community?

A. Again, the vast majority of meteorologists don't understand what they are looking at. So, for those people to interpret the data differently, it's not an informed, it's not an informed interpretation. There are a small number of meteorologists that deal with this issue. Most of them work at the Hurricane Research Division in Miami. There are a few others that deal with reconnaissance data, and amongst that group, there's disagreement as to how to interpret the data.

Q. And --

A. I'm sorry, go ahead.

Q. In that group, would you consider any of those --we're talking about the group in Miami. In that group in Miami, would you consider any of those people to not be qualified to give opinions about meteorology with respect to reading these dropsonde instruments and reducing them to the surface winds?

MR. DYAL: Objection. Calls for speculation.

A. There's lots of individuals that work at the Hurricane Research Division. Some of them have a lot more experience dealing with dropsonde data, specifically GPS dropsonde data that's been acquired in the last ten years. It's a relatively small number of people. Not everybody at the Hurricane Research Division is as expert in this area as others.<sup>53</sup>

This excerpt certainly expresses that Lt. Col. Henning is not attempting to be a "lone wolf" and that certain peers at the Hurricane Research Division are equally versed in the intricacies of interpreting GPS dropsonde data. Consistent with *Daubert*, Lt. Col.

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<sup>52</sup> Ex. "B" at 67-68.

<sup>53</sup> Ex "B" at 70-72.



Henning's testimony and opinions are "supported by appropriate validation – *i.e.*, 'good grounds,' based on what is known." Accordingly, Plaintiff's Motion should be denied.

### **CONCLUSION**

Boiled down to its essence, Plaintiff is unhappy Lt. Col. Henning refuses to utilize the precise data used by her experts, and when questioned, offers, clear, concise and reasonable explanations that will be readily understood by the jury. To be sure, Plaintiff can cross-examine Lt. Col. Henning on the underlying data<sup>54</sup>; it just won't be effective, and Plaintiff knows it. Essentially, Plaintiff is trying to achieve through motion practice what she knows cannot be achieved through cross-examination.

Henning is qualified. The methodology is sound. The data is reliable.

WHEREFORE, PREMISES CONSIDERED, Crowley respectfully requests that Plaintiff's instant Motion to Exclude Expert Testimony of Richard G. Henning be denied.

Respectfully submitted, this the 3rd day of March, 2008.

CROWLEY LINER SERVICES, INC.

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<sup>54</sup> See *Daubert*, 509 U.S. at 596 ("These conventional devices, rather than wholesale exclusion under an uncompromising 'general acceptance' test, are the appropriate safeguards where the basis of scientific testimony meets the standards of Rule 702.")

**CERTIFICATE OF SERVICE**

I hereby certify that on March 3, 2008 I electronically transmitted the foregoing with the Clerk of the Court using the ECF system which sent notification of such filing to the following:

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